Written evidence submitted by the Department for Energy Security and Net Zero (HEA0120)

1. What policy changes are needed to deliver energy efficient homes across the UK?

To reach our Net Zero target by 2050 the Government recognises the need to decarbonise the way we heat and cool our homes and workplaces, and to ensure that, in the near term, we meet our fuel poverty and emissions reduction targets.

The Heat and Buildings Strategy set out the actions the Government will take to reduce emissions from buildings in the near term and provides a clear long-term framework to enable industry to invest and deliver the transition to low-carbon heating.

The Government is already investing £6.6 billion over this Parliament on clean heat and improving energy efficiency in buildings, reducing our reliance on fossil fuel heating. In addition, £6 billion of new Government funding will be made available from 2025 to 2028.

The Government set the aspiration in the Clean Growth Strategy of upgrading as many homes as possible to EPC Band C by 2035, where practical, cost-effective and affordable. We remain committed to that aspiration and are considering how to improve the energy efficiency of owner-occupied homes. We plan to consult by the end of 2023 and will use the consultation to gather further evidence on how we can ensure a fair and proportionate approach that is affordable for homeowners.

2. What are the key factors contributing to the under-delivery of the UK's Government-backed retrofit schemes?

The Government has a launched a number of retrofit schemes providing billions of pounds in support, including the Social Housing Decarbonisation Fund (SHDF), The Home Upgrade Grant (HUG), the Green Homes Grant Voucher, Local Authority Delivery scheme, the Energy Company Obligation and the Boiler Upgrade Scheme.

These programmes are helping to make homes warmer and reduce bills and carbon emissions. The programmes have been learning lessons throughout delivery and we have made changes to the programmes considering feedback.

<u>Examples of lessons we have learnt</u>

1. Delivery timelines have been extended on Wave 2 and Phase 2 of SHDF and HUG to enable projects to deliver over 2 summers.

2. We have introduced a Consumer Advice and Information Service where the public can find out ways of improving their energy efficiency.

3. Funding Certainty – We have moved from a 1-year spending review settlement in 2020, to a 3-year in 2021 and now £6bn has been committed for 2025 – 2028 to support the Government ambition to reduce energy demand from buildings and industry by 15% by 2030.

New government funding worth £6 billion will be made available from 2025 to 2028, in addition to the £6.6 billion provided in this Parliament. which provides more certainty to the market.

Green Homes Grant Voucher Scheme

The lessons from the Green Homes Grant Voucher Scheme are well documented by the National Audit Office (NAO) and the Public Accounts Committee.

A decision was taken to close the scheme to new applicants due to delivery not happening at the expected rate. The Green Homes Grants Voucher scheme stopped taking new applications on 31st March 2021.

The scheme faced several delivery challenges which may have been exacerbated by the impact of COVID restrictions, affecting the willingness of householders to allow tradespeople into their homes. For example, an ONS survey carried out at the time found that only 38% of people were comfortable having workers in their home for non-essential work during lockdowns.

The scheme closed out and installed 49,355 measures to 43,168 homes and spent a total of £232m.

Following the end of the scheme we have refocused efforts and funding on alternative approaches to maximise the delivery of home retrofits for consumers who were most in need and supporting the supply chain to keep delivering.

3. Which standards and assessment frameworks are needed to deliver a reliable, skilled workforce capable of transitioning UK homes to modern heating solutions?

The Government recognises the need for a skilled, competent, and robust supply chain to deliver the improvements to buildings necessary to meet our net zero targets.

All heat pump installations are expected to comply with Building Regulations. In December 2021, Government updated Approved Document Part L, which provides practical guidance on compliance with Part L of the Building Regulations. The

updated document provides additional guidance on the standard expected of heat pump installations and took effect from June 2022.

Many heating installers chose to comply with building regulations by self-certifying their work as part of a competent person scheme. This avoids the need for further inspection by a building control body. One of the requirements for an installer to be a member of a competent person scheme is that they must be able to demonstrate appropriate competence to undertake the work.

The Health and Safety Executive (HSE), as Building Safety Regulator, are currently reviewing and updating the competence requirements for Competent Person Schemes, including GasSafe.

Contractors installing heat pumps within Government schemes are also required to be certified by the Microgeneration Certification Scheme (MCS) or an equivalent. MCS offer further guarantees to consumers and can provide consumers with additional support if needed.

There are over 1,500 businesses in the UK certified with MCS to install heat pumps, estimated to employ over 4,500 installers. The total number of trained heat pump installers is, likely to be greater than this, as MCS Certification is only required for installations receiving Government grant funding.

In July, Government launched a Heat Training Grant scheme, expected to support over 10,000 training opportunities for heat pumps and heat networks. The training grant comes in addition to the £15m Government has already committed since 2020 to developing skills in the energy efficiency and low carbon heating sectors.

More generally, the Government recognises the importance of consumer protection and is fully committed to protecting all consumers who have green heating and insulation products installed in their homes as well as improving the overall consumer journey, regardless of housing tenure or how installation work is funded.

As part of this commitment, the Government sponsors the development and publication of the Publicly Available Specification (PAS) 2035/2030 documents. PAS 2030 and 2035 were developed by British Standards Institute (BSI) through an industry led working group in response to the recommendations of the independent Each Home Counts review. They represent an industry-wide approach to ensuring quality in the retrofit of people's homes and were designed to help improve quality and to protect the consumer.

4. How might the Government support innovation in delivering local solutions?

We are testing new business models for investment into net zero, and to explore simplification of delivery. One approach is using devolution deals to pilot new approaches. For example, the wide-ranging “Trailblazer” devolution deals with Greater Manchester Combined Authority and West Midlands Combined Authority include first-of-kind pilots for retrofit funding from 2025 (subject to conditions such as outcomes to be achieved) and which provide scope for a greater role to plan new energy infrastructure investment strategically.

Schemes in live delivery such as the Local Authority Delivery and the Social Housing Decarbonisation Fund (SHDF) have also provided funding to Net Zero Hubs and Combined Authorities who have been able to work across a region. An example is in the SHDF Wave 1 project, where the Greater Manchester Combined Authority (GMCA) have partnered with 11 other registered providers to engage with communities across the Greater Manchester city region to deliver energy efficiency measures to 963 homes. The project was awarded £10.5m with an additional £8m co-funding to install building fabric improvement measures, low carbon heating and renewable energy systems.

Alongside this work, the Government has been working with the Local Government sector and green finance organisations to look at ways to aggregate net zero in a place-based initiative and attract private investment. This work continues through Connect Places Catapult’s 3CI programme.

We are also supporting place-based energy system innovation through Innovate UK's £60 million Net Zero Living Programme. This includes:

- Net Zero Pathfinders for UK registered businesses and local authorities to apply for a share of up to £2 million to plan for a place-based demonstration of ways to accelerate progress towards net zero.
- Fast Followers for local authorities to apply for a share of up to £6 million to build skills and capabilities to accelerate local progress towards net zero.

Finally, the UK Government committed up to £104 million of funding through the Industrial Strategy Challenge Fund to the Prospering from the Energy Revolution (PFER) programme. The programme developed smart local energy systems to provide investable, scalable local business models and finance mechanisms using integrated approaches to deliver cleaner, cheaper energy services.

5. What role should customer choice play in the future planning of energy networks for home heating?

As set out in the Heat and Buildings Strategy, consumer choice needs to be at the heart of the transition to net zero buildings. That is why we are seeking to maximise the number of low carbon heating options available through providing support to

households looking to install a heat pump via the Boiler Upgrade Scheme, growing the market for heat networks and progressing our work to trial hydrogen heating with a view to taking strategic decisions on its role in 2026.

We also recognise the potential role local-level energy planning can play in allowing stakeholders, including individual consumers, to identify and explore routes to decarbonisation in their area. This could help inform future design of energy networks. As part of their regulation, network companies are incentivised by Ofgem who sets the price control to engage with customers, including local communities, as they plan their networks for the future.

More broadly, the public will need to be engaged regarding the future options for heating their homes, including associated changes to energy networks. Public engagement will be crucial for generating buy-in to future policies and raise awareness about future choices regarding their heating systems. Key to this engagement will be formal public consultation on proposed changes to people's heating systems.

6. Does the current state of consumer protections for low-carbon home technologies represent a barrier to uptake of these products?

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Consumers considering home retrofit work should engage with installers who take a "whole house" approach and are also members of a scheme that certifies the competence of those carrying out work, to provide them with assurance around the standard of the work carried out and consumer protection.

The Government also welcomes the recent research the CMA has carried out on consumer protection in the green heating and insulation sector and will consider the recommended actions through the departments policies and other work.

7. How will the public be able to afford the switch to decarbonised heating?

As we face the costs of moving to low carbon heating, fairness will be at the heart of our approach. Every household and business should be confident that we are all paying our fair share of the costs of transitioning to low carbon alternatives.

We recognise that low carbon heating, like heat pumps, do currently tend to cost more to install than a fossil fuel heating system. For this reason, the Government is acting now to grow the market and is providing support for those wishing to make green choices by zero-rating VAT on energy saving materials, like heat pumps, until April 2027, and by offering grants to help with upfront costs.

The Government is investing £6.6 billion over this Parliament and has announced £6 billion of new Government funding for the period 2025 to 2028, to drive improvements in energy efficiency and accelerate deployment of clean heat. This includes funding for the Boiler Upgrade Scheme, which provides households in England and Wales with grants of up to £6,000 to install heat pumps and in limited circumstances, biomass boilers.

The Government is also committed to ensuring that in future heat pumps will be no more expensive to run than an oil or gas boiler. We are doing this by improving heat pump efficiency through innovation, installer training and product standards. Evidence suggests that when installed alongside a suitability sized central heating system, a heat pump is a very efficient form of heating and can be cheaper to run than a fossil fuel boiler, but it's important that consumers find a good installer and that their home has sufficient insulation to realise any energy bill savings.

Given currently high electricity prices, we accept that more needs to be done to reduce the cost of running a heat pump. The Government wants to make it easier for consumers to make the switch to green products and is reviewing electricity market arrangements to disconnect wholesale fossil fuel prices from renewable electricity prices. The Government has also committed to 'rebalancing' prices between electricity and gas to remove current distortions in prices.

In *'Powering Up Britain'*, the Government accepted the recommendation from the Independent Review of Net Zero that Government should commit to outlining a clear approach to gas and electricity price rebalancing by the end of 2023/24 and should make significant progress affecting relative prices by the end of 2024. We are working to develop our approach to rebalancing to meet these commitments and will provide further information in the coming year.

The Government is also continuing to assess the technical feasibility, costs, benefits, and other impacts of using hydrogen heating with a view to taking strategic decisions in relation to its role in 2026.

8. How will decarbonisation plans be drawn up in each area?

While there is not a formal requirement of decarbonisation plans to be drawn up in local areas the Government recognises the potential role local-level energy planning can play to bring together key stakeholders – including local authorities and network operators – to explore routes to decarbonisation in their local area and respond to specific needs.

The Department has work underway to consider the role of Local Area Energy Planning (LAEP) in delivering net zero and in supporting efficient network planning – including heat networks zoning policy. This includes engaging with Ofgem as part of its ongoing governance review into local energy institutions, as well as working closely with DLUHC, UKRI, ESC, the devolved administrations and other key stakeholders.

In addition, under our heat network zoning proposals national Government will identify areas across England where heat networks will be the lowest-cost approach to decarbonising heating and hot water in buildings. These heat network zones will then be refined and consulted upon by local government before designation.

9. Do the current EPC frameworks help consumers make informed decisions on transition?

Energy Performance Certificates (EPCs) provide information that help consumers understand and improve the energy performance of their home by providing information about the energy costs and carbon emissions of a home and ways in which they can be reduced.

The EPC uses a cost-based Energy Efficiency Rating (EER) and a carbon-based Environmental Impact Rating (EIR). The EER is used to determine the EPC rating and provide recommendations, with the EIR providing additional information for consumers. This ensures that any improvements recommended by the EPC will lead to a reduction in energy costs for homeowners and occupiers. For example, the EPC frequently encourages insulation measures that reduce energy demand, therefore reducing energy bills for occupants, as well as reducing the carbon emissions of the property.

To date, the UK has made good progress in improving the energy performance of homes. 47% of homes in England are now EPC Band C or above, up from 14% in 2010. The Government wants to go further and set out an aspiration in

the 2018 Clean Growth Strategy for as many homes as possible to reach EPC Band C by 2035 were cost-effective, affordable & practical. Setting minimum EPC standards can support this transition. As of April 2020, privately rented homes in England and Wales are required to meet the minimum standard of EPC Band E before they can be let, unless a valid exemption applies.

The Government recognises there is more it can do to help consumers use EPCs to make informed decisions on transition.

The Independent Review of Net Zero recognised challenges with EPCs and recommended that the Government reforms the metrics to better reflect current relative costs of heat pumps and account for wider benefits from low-carbon heating systems. The Review also recommended that EPCs provide more detailed information to consumers and ensure that EPCs are updated on a regular basis.

In response to the Review, the Government is currently working on proposals for improving EPC metrics, and intends to consult on these this year, also taking account of recently published proposals from the Climate Change Committee.

The Government also has a continuing programme of user research to improve the way in which information is presented on certificates. EPCs currently have a validity period of ten years and the Government intends to consult on options to change this validity period. We are overhauling the building physics model underpinning EPCs to make it fit for purpose to support net zero. We aim to consult on this new model later in 2023.

10. Do standards need to differ for different types of housing?

The Government set the aspiration in the Clean Growth Strategy of upgrading as many homes as possible to EPC Band C by 2035, where practical, cost-effective and affordable. We remain committed to that aspiration. However, the pathway to EPC Band C may look different across tenures, reflecting differences across the markets and the nature of stock improvements needed.

In the social rented sector, all properties are required to meet the Decent Homes Standard, where there is an existing requirement that homes should provide a reasonable degree of thermal comfort and to be free of excess cold. This equates to roughly an EPC F minimum.

As part of the 2021 Heat and Buildings Strategy, the Government committed to consider setting a new regulatory standard of EPC Band C for the social rented sector. We have now made a further commitment to consult on energy efficiency in the sector within 6 months of the Social Housing Regulation Act receiving its Royal

Assent on 20th July 2023.

As of April 2020, privately rented homes in England and Wales are required to meet the minimum standard of Energy Performance Certificate (EPC) Band E before they can be let, unless a valid exemption applies. We are committed to raising standards in the sector in line with our ambition set out in the Clean Growth Strategy. We have consulted on improving standards in the private rented sector and will publish a summary of responses to this consultation by the end of this year.

There are no existing minimum energy efficiency standards in the owner-occupied sector. We are considering how to improve the energy efficiency of owner-occupied homes and plan to consult by the end of 2023.

Meanwhile, the Government is working with Local net zero hubs to commence a series of local in-person advice demonstrator projects across England in 2023. These projects will provide the opportunity to test and learn from different approaches to address the advice needs of particular groups (e.g., harder to treat homes/ harder to reach groups).

11. What is the role of different levels of Government in developing, funding and implementing schemes?

The Department works closely with colleagues across Whitehall to shape policy, share best practice, and ensure that policy goals are aligned.

We recognise that net zero will require action at all levels of society and Government, with local Government playing an essential role in driving local climate action, with significant influence in many of the national priorities across energy, housing, and transport.

We are committed to working with local Government on the broad range of challenges and opportunities that net zero presents. The Heat and Buildings Strategy, the Net Zero Strategy and the Net Zero Growth Plan set out our approach to working with local Government in more detail.

This includes working with the Local Net Zero Hubs and local authorities up and down the country to deliver key pledges, such as the Public Sector Decarbonisation Scheme, Home Upgrade Grants, Local Authority Delivery, the Social Housing Decarbonisation Fund, and schemes to deliver new, improved, and greener heat networks.

We also work with local Government through the Local Net Zero Forum which brings together national and local Government senior officials on a regular basis to discuss policy and delivery options on net zero.

The Social Housing Decarbonisation Fund will upgrade a significant amount of the social housing stock currently below EPC C up to that standard, delivering warm, energy-efficient homes, reducing carbon emissions and fuel bills, tackling fuel poverty, and supporting green jobs.

The 2020 Summer Economic Update announced the SHDF Demonstrator project, launched in 2020, which awarded around £62m of grant funding in 2021 to social landlords across England and Scotland to test innovative approaches to retrofitting at scale, seeing up to 2,000 social homes improved to at least EPC band C and supporting over 1,000 local jobs.

The Local Authority Delivery Scheme (LAD) is focused on low-income households in homes that most need energy efficiency upgrades. The scheme prioritises homes with low Energy Performance Certificate (EPC) ratings of D, E, F&G. There are over 200 Local Authorities taking part in Phase 1 of the current scheme – and participation has increased even further through Phase 2 of the scheme.

The Sustainable Warmth competition brings together two fuel poverty schemes (Local Authority Delivery Phase 3 and Home Upgrade Grant Phase 1) into a single funding opportunity for Local Authorities, worth £500m.

The Home Upgrade Grant provides grants to low-income households to upgrade the energy performance of the worst quality, off gas grid homes in England by installing multiple energy efficiency measures and low carbon heating. This will typically include insulation measures in combination with a heat pump to make the home heat efficient and suitable for the future as we build towards net zero.

On hydrogen, the Government is working with industry, regulators and others to deliver a range of research, development and testing projects to assess the feasibility, costs and benefits of using 100% hydrogen for heating.

This work includes a pioneering programme of community trials. The Government will support industry to deliver a neighbourhood trial by 2024, a village scale trial by 2025 and a potential hydrogen heated town before the end of the decade.

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